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Water, energy, health, agriculture and biodiversity

Synthesis of the framework paper of the Working Group on WEHAB

The WEHAB initiative was proposed by the Secretary-General as a contribution to the preparation for the World Summit on Sustainable Development. It seeks to provide focus and impetus to action in the five key thematic areas of water, energy, health, agriculture and biodiversity that are integral to a coherent international approach to the implementation of sustainable development and that are among the issues contained in the Summit's draft plan of implementation.

The WEHAB initiative responds in part to General Assembly resolution 55/199, by which the Assembly mandated the preparatory process for the Summit, and decided that the Summit should focus on areas where further efforts are needed to implement Agenda 21 and that action-oriented decisions in those areas should address the challenges and opportunities. The General Assembly, in resolution 56/226, also encouraged new initiatives that would contribute to the full implementation of Agenda 21 and other outcomes of the United Nations Conference on Environment and Development by strengthening commitments at all levels, including by reinvigorating global commitments and partnerships, both among Governments and between Governments and major groups.

In proposing the WEHAB areas for the preparations for the World Summit on Sustainable Development, the Secretary-General sought to identify those areas through which the broadest and most comprehensive impact could be realized in eradicating poverty while advancing the goals of sustainable development. They also constitute areas that are strongly linked to the achievement of the millennium development goal of halving poverty by 2015, thus providing an important framework for implementation and action in the follow-up to the World Summit on Sustainable Development.

Over the last decade, numerous international conferences have discussed and agreed on steps required to speed up the implementation of Agenda 21.

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Water was discussed at the intergovernmental level at the sixth session of the Commission on Sustainable Development in 1998, and broad consensus was reached on key water-related issues. Recent international water meetings (the Second World Water Forum in The Hague in 2000 and the International Conference on Freshwater in Bonn in 2001) served as important forums for multi-stakeholder dialogues and generated new recommendations on how to address increasing water challenges. And although there is no global, comprehensive intergovernmental structure for water, there is a very dynamic non-governmental expert level process of advancing international understanding and cooperation on water for sustainable development. These efforts are led by different Governments, by the private sector and members of civil society, by the work of the various entities of the United Nations system and by other regional and intergovernmental bodies as well as by several organized groups like the Water Supply and Sanitation Collaborative Council, the Global Water Partnerships, the Gender and Water Alliance and the World Water Council, among others.

In the area of *energy*, explicit global intergovernmental convergence is more recent. Based on a mandate of the General Assembly at its nineteenth special session, on the review and appraisal of the implementation of the Rio commitments in 1997, the Commission on Sustainable Development devoted its ninth session to energy, transport and atmosphere issues. The outcome of its deliberations constitutes the global agreement on energy and sustainable development so far. A number of other major consensus documents or conventions, however, contain recommendations or provisions relevant for "energy for sustainable development" agenda.

The World Social Summit and the Millennium Summit had *health* as one of the central features, and at the Millennium Summit world leaders agreed on specific time-bound targets to be reached by 2015. These international meetings have identified several key issues and challenges, with increasing focus on the need to improve the health conditions of the poor and the vulnerable. Other conferences over the last decade have also addressed important health and environment linkages. They range from those that aim at phasing out ozone-depleting substances to those dealing with hazardous wastes, chemicals, pesticides and persistent organic pollutants.

In *agriculture*, there are numerous agreements, treaties and protocols that affect it either by calling for drastically reducing the number of poor and undernourished people by 2015; or by calling for market access and for a more equitable international trading deal in agriculture; or finally for making agriculture more sustainable.

For *biodiversity*, a series of multilateral environmental agreements related to biodiversity has been developed. The principal comprehensive treaty on biodiversity is the Convention on Biological Diversity, with 183 parties. Other global treaties are also key instruments for dealing with specific dimensions of biodiversity. The most closely linked to the Convention on Biological Diversity are the Ramsar Convention on Wetlands, the Bonn Convention on Migratory Species and its regional agreements, the World Heritage Convention, the Convention to Combat Desertification, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In addition, there are a number of important treaties for regions and specific groups of species or ecosystems.

Many of these major agreements and commitments in the WEHAB areas have been achieved since the Summit at Rio and during the decade of the nineties. The lack of progress in eradicating poverty and reversing ecosystem degradation is not for a lack of agreements and treaties. In the same way that the decade of the nineties signalled a decade of reflection, diagnosis and search of solutions, and commitment to address the challenges, the decade to follow the Summit should become the one for determined action and implementation. Ten years after Rio, the world needs practical frameworks for action and implementation — and more importantly, the political will and sufficient financial resources to carry these out. A focus on the WEHAB areas provides an opportunity to make progress on some of the most urgent needs and problems of the poor in developing countries. Following is a highlight of some of the major issues and challenges in each of these areas as well as the most important areas for action.

Water

Water resources in many countries remain fragile, more due to poor resource management than to actual water scarcity. Measures promoting sustainable use of water are less than satisfactory. About 1.2 billion people still have no access to safe drinking water, and 2.4 billion do not have adequate sanitation services. Some 2 million children die every year from water-related diseases. In the poorest countries, one in five children dies before the age of five mainly from water-related infectious diseases arising from insufficient water availability, in both quantity and quality. At any one time, half of the world's hospital beds are occupied by patients suffering from water-borne disease. Diarrhoeal diseases, a result of lack of adequate water and sanitation services, in the past 10 years have killed more children than all people lost to armed conflict since the Second World War. Thus provision of safe drinking water and sanitation services to more than 1 billion people over the next decade remains one of the most critical challenges humanity is facing today.

Pollution of water resources is on the increase in many places, and water distribution and use efficiencies are low both in irrigation and in urban water supply networks. By 2005, urban populations in developing countries will have doubled over today's figures, to 4 billion. Unfortunately, sanitation and water programmes globally are not geared to keep pace with these shifting and growing populations. Delivery of services by existing water supply systems is increasingly deteriorating. Many towns and cities in developing countries have unreliable piped water systems with supply interruptions and high leakage rates and unaccounted-for connections.

The ever-increasing competition for water affects the poor most, especially women and girls who have to walk farther in search for water to meet the most minimal household needs. In Africa, women and girls spend as much as three hours a day fetching water, an energy expenditure greater than one third of their daily food intake. This pattern is replicated in schools: when water is needed, it is girls who are sent to fetch it, taking additional time away from their studies and play time. And when family members are sick, more often than not due to water-related diseases, girls are more likely to be kept home to care for them. Providing water closer to homes thus significantly increases the time that mothers have available to care for their children and that girls have to attend schools.

In countries seriously affected by drought, land degradation, desertification or floods — all of which are on the increase due to climate change and variability and

also human activities — the poor are the most vulnerable and frequently the first victims, since they rely essentially on land and water resources to sustain their livelihoods. The productivity of water in agriculture remains low, hampering efforts at income generation, economic growth and sustainable development. The presence of toxic elements in water — fluoride in India and China, for example, and arsenic in groundwater in Bangladesh — has led to serious public health risks.

Over the last two decades, the number and scale of water-related disasters have increased greatly because of climate change and variability as well as increasing demand due to indiscriminate growth without proper supply management.

In addressing the complex issues of water and its linkages, Governments have gradually been adopting the principles of integrated water resources management frameworks that contain national water policy, strategies and legislation; an information system; allocation scenarios and action plans, either at the national or basin level; coordination, financing and monitoring mechanisms to implement the plans; governance mechanisms to ensure transparency and accountability; and a unique organization responsible for the whole thing. Without such a framework, conflicts over limited and vulnerable water resources will continue to develop between rural, industrial and urban users. Unfortunately, countries have been slow in adopting integrated water resources management principles.

Financial resources remain the most limiting constraint. Water and sanitation infrastructure projects are usually capital-intensive. For many developing countries, the flow of financial assistance from rich countries and multilateral institutions has been much lower than warranted by the magnitude of the crisis.

But despite the slow progress, over the past 10 years some 900 million people have gained access to water supplies and 985 million to sanitation. In many countries, the role of Governments has started to shift from service provider to provider of an enabling environment for integrated water resources management and coordinator of the much needed investments in the water sector. Local communities are much more aware of the roles they can play in decentralized water resources management. There is more recognition on the part of the public and private sectors of the need to form new kinds of partnerships to meet the complex challenges.

Water assumed a central role in the drafting of the millennium development goals because of its role in generating economic growth and reducing poverty, and achieving food security, improving environmental health conditions and protecting ecosystems. Perhaps more than any other sector, sustainable water use and, in this context, water supply and sanitation involve all the main themes of the development agenda: poverty alleviation, environmental sustainability, private sector-led growth, participatory development and good governance. This is an enormous challenge.

The WEHAB Working Group suggests nine areas for action:

- Providing safe drinking water supplies
- Expanding safe drinking water supplies
- Preparing and implementing water management action plans
- Improving water productivity in agriculture
- Safeguarding human health

- Strengthening disaster preparedness planning processes
- Mobilizing financial resources
- Strengthening institutional and technical capacities
- Protecting aquatic ecosystems, including estuarine and marine systems

Making progress in these areas will help not only in achieving the water-related millennium development goals, but also in meeting the overarching millennium development goal of poverty reduction.

Energy

Energy services are essential for sustainable development. The way in which these services are produced, distributed and used affects the social, economic and environmental dimensions of any development achieved. The lack of modern energy services correlates closely with many indicators of poverty, such as poor education, inadequate health care and hardships imposed on women and children. At the local and national levels, a reliable energy supply is essential to economic stability and growth, jobs and improved living standards.

Current patterns of energy supply and consumption are clearly unsustainable. Nearly one third of the world has no access to electricity, and another third has only poor access. Reliance on traditional fuels for cooking and heating can have serious impacts on the environment and on people's health. Furthermore, wide disparities still exist in the levels of energy consumption within and between countries, with the richest people in the world using nearly 25 times as much energy per person as the poorest people.

Major changes in existing energy services delivery systems are required so that energy can become an instrument for sustainable development. Shifting the existing supply model to a focus on energy services will require fundamental readjustments of public policies to promote and adopt sustainable energy. The growing demand in developing countries for energy services presents a historic opportunity to satisfy demand in ways that are compatible with sustainable development. If renewable energy, energy efficiency and clean conventional technologies are more widely used, with a focus on decentralized systems, benefits can be reaped for economic and social development as well as for environmental protection.

Modern energy services can be a vital entry point for improving the position of women in households and societies. It is mainly women who do the cooking, so they and their children are most vulnerable to indoor air pollution from cooking fires. In addition, as traditional fuels become scarcer, girls are often withdrawn from school because more time is required for the collection and transport of fuels. This can have lifelong effects on literacy, family size, well-being and economic opportunities for women.

Today some 1.7 to 2 billion people in the world, mostly in rural areas, have no access to electricity. A further 2 billion are severely undersupplied. One third of the world relies on traditional fuels — wood, dung and agricultural residues — to meet their daily heating and cooking needs. Meeting the rapidly growing needs of present and future populations in developing countries will require large capital investments. It is estimated that developing countries need to invest on the order of

2.0 to 2.5 per cent of their gross domestic product over the next 20 years if they are to achieve economic prosperity.

Technology innovation leading to the development and adoption of clean and affordable energy technologies is not happening fast enough or on a large enough scale to meet the growing demand in developing countries. This innovation is needed not only to help supply the energy services to those who need them but also to stop or mitigate the negative environmental effects of energy use. The combustion of fossil fuels is the largest source of health-damaging air pollutants, as well as being the major source of greenhouse gases. Indoor fires burning coal, wood or other biomass fuels are also a significant source of particulate pollution in rural homes. Smoke from cooking fires contains dangerous amounts of toxic substances and can also lead to respiratory problems. At the global level, one of the most serious environmental problems today is the steady and long-term increase in atmospheric concentrations of greenhouse gases, which is causing changes in climate patterns.

The Commission on Sustainable Development at its ninth session explicitly focused on energy and clearly recognized its critical role and its linkage with the three supporting pillars of sustainable development: social, economic and environmental. Based on the outcome of that session, it is possible to lay out the major challenges and drivers for energy for sustainable development in the years ahead.

Accessibility. Wider access to affordable energy services is a necessary condition for meeting the challenge of the millennium development goal of halving the proportion of people living on less than $1 a day by 2015. The greatest access challenges are currently found in rural areas, though with the current trend towards urbanization in developing countries, this problem is increasingly present in large poor communities within and at the margins of cities.

Energy efficiency. Energy efficiency opportunities can be found in almost all energy end-uses, sectors and services, and the immense potential remains untapped. End-use energy efficiency focuses on improving the equipment that provides the services, such as measures to make heating and air-conditioning equipment, appliances, lighting and motors more efficient. Supply-side energy efficiency, in contrast, focuses on performance-based improvements resulting in more efficient energy generation, improved industrial processes, cogeneration and energy recovery systems. Measures to enhance access to technology, capacity-building, financing, market stimulation and institutional issues will help to meet the energy efficiency challenge.

Renewable energy. Renewable energy technologies hold great potential to satisfy basic needs and to support poverty alleviation and sustainable development. There is a range of commercially available, field-proven renewable energy technologies, including solar, wind, geothermal, biomass, and hydropower, but they are not yet used widely in tackling the shortfall in access to energy services. Modernized biomass approaches for providing fuels and electricity to meet rural energy needs are particularly promising and an area ripe for technology transfer to developing countries. To speed the introduction and adoption of renewable energy systems, the key issues are expanding access to the technologies and reducing their costs. Enhanced regional and international cooperation will be important in

identifying the appropriate entry points for supporting the expansion of renewable energy.

Advanced fossil fuel technologies. Fossil fuels will continue to be the primary energy supply option worldwide when considered as a proportion of the global supply mix. The challenge is how to use them more efficiently and how to reduce their negative environmental impacts at the local, regional and global levels. The transition to cleaner and more advanced fossil fuel technologies is recognized as essential to support sustainable development. This is particularly important in developing countries, where the rising demand for energy services and growing populations will drive the largest demand for new installed capacity for electricity and increased supply of clean fuels. Efforts should be focused on efficiency improvements in power plants, wider access and research and development for advanced energy systems and fuels.

Energy and transport. Transport — the most energy-intensive sector — is viewed as a key challenge for sustainable development. Transport causes pollution that has adverse effects on the environment at the global, regional and local level and that harms human health. Furthermore, limited access to transport is often cited as a contributing factor to poverty. The two major challenges for energy and transport are the wider adoption of cleaner fuels and modal shifts to cleaner and more efficient forms of transport.

Health

Ill-health creates and perpetuates poverty, triggering a vicious circle that hampers economic and social development and contributes to unsustainable resource use and environmental degradation. So efforts to protect the health of the environment need to be closely linked to programmes to protect the health of people. The link between health and the environment is most evident among the poor, who frequently live in unsafe and crowded settlements, in underserved rural areas or in slums on the edges of the cities.

Although concerted action over the last 50 years has led to significant improvements in human health — average life expectancy has increased significantly and infant and child mortality rates have declined — not all regions of the world have shared equally in these improvements. And more than 2 million children under the age of five continue to die each year from diseases that are easily preventable by current available vaccines. In developing countries, 28,000 young children die every day. Acute respiratory infections are the top killers of young children today, accounting for nearly 2 million deaths. Pneumonia, the deadliest of these illnesses, kills more children than any other infectious disease. Diarrhoeal diseases are the second leading killer of children, and claim over 1.5 million young lives each year.

The main causes of avoidable death in low-income countries have been well documented: they include HIV/AIDS, malaria, tuberculosis, childhood infectious diseases, maternal and perinatal conditions, micronutrient deficiencies and tobacco-related illnesses. There is little doubt that improvements in health in these areas alone would translate into higher incomes, higher economic growth and reduced population growth — all major contributing factors to sustainable development.

Infectious and parasitic diseases account for around 25 per cent of total deaths and are the world's leading killers of children and young adults, including many breadwinners and parents. These diseases, which have intimate links to environmental conditions and poverty, affect the lives of poor people disproportionately and pose a serious threat to health and economic development.

The rapid rise of non-communicable diseases is also threatening economic and social development as well as the lives and health of millions of people. These are largely associated with unhealthy lifestyles and consumption processes (unhealthy diets, physical inactivity and tobacco and alcohol use) as well with poor environmental quality, giving nations an added burden of disease to cope with — a burden their underfunded national budgets and weak health sectors can ill afford. If the growth in tobacco use goes unchecked, the numbers of deaths related to its use will nearly triple — from 4 million a year to 10 million within 30 years. More than 70 per cent of these deaths will occur in developing countries, an increasing proportion among women.

Health has intimate links with other WEHAB areas. Water-related diseases contribute significantly to global morbidity and mortality. They occur in countries at all levels of development and in all regions, with the burden of disease being borne disproportionately by children, particularly in developing countries. Regarding the linkages to energy, the environmental consequences of current patterns of energy generation and use account for a significant fraction of the health impacts of using energy, mainly due to poor air quality. Agriculture and health are also inextricably linked: people's health depends on productive and sustainable agriculture, and agriculture, in order to be continuously productive, needs a healthy workforce. Undernourishment, in the sense of insufficient calories, is one of the primary causes of poor nutrition and, often, of premature death.

Poverty is a major cause of undernutrition and poor health; it contributes to the spread of diseases and environmental degradation, it undermines the effectiveness of health systems, and it impedes efforts to slow population growth. Other factors, such as rapid and uncontrolled urbanization and industrialization, are adversely affecting the quality of the physical and social environment and have outstripped the capacity of the health infrastructure to meet people's needs.

New technologies could transform health systems and improve health. Stronger partnerships for health between private and public sectors and civil society could lead to stronger joint action in support of improved health. Progress to date has been hampered by a number of factors, however, including insufficient political commitment, inadequate human resources, weak health systems, difficulty in achieving intersectoral action for health and insufficient funding, and lack of investment in research and development for tropical diseases.

Some countries have been successful in tackling the goal of better health for all. Those with successful strategies and policy measures have a number of elements in common:

- They focus on diseases, health conditions and risk factors, both present and future, that threaten sustainable development.
- They focus on the broader determinants of health and disease.
- They focus on good governance and sustainable health systems.

- And they forge partnerships with sectors inside and outside of health.

In the first ever global analysis of health systems carried out by the World Health Organization, performance was found to depend on four vital factors: service provision, resource generation, financing and stewardship. The following factors have been found to be essential to improving health systems: making quality care available across the life span; preventing and controlling disease and protecting health; promoting regulations and legislation in support of health systems; developing health information systems and ensuring active surveillance; fostering the use of innovation in health-related science and technology; building and maintaining human resources for health; and securing adequate financing.

The WEHAB Working Group recommends five areas for action in health and environment:

- Reducing poverty and malnutrition using the time-bound targets of the millennium development goals
- Improving access to affordable, efficient health services and reducing infant, child and maternal mortality using the time-bound targets of the millennium development goals
- Controlling and eradicating major diseases using the time-bound targets of the millennium development goals
- Improving health and sustainable development planning
- Addressing health and environment linkages
- Improving capacities in risk management/disaster preparedness related to health

Agriculture

Agriculture plays a crucial role in sustainable development and hunger and poverty eradication. Some 70 per cent of poor and hungry people in developing countries live in rural areas and depend directly or indirectly on agriculture for their livelihoods. Agricultural productivity growth can bring about swift and sustainable reductions in hunger and poverty, for farm incomes rise when productivity increases. Over the past 30 years, agricultural productivity growth resulting from successful agricultural research and development meant food production in developing countries tripled, outstripping population growth. Over the same period, the proportion of undernourished people dropped from 35 to 17 per cent and poverty decreased.

These results were achieved despite the declining availability of land and water resources per person, but they often resulted in the depletion or degradation of the natural resource base, generating costs that are only now being realized. It follows that future increases in food and other agricultural production will have to come mainly from sustainably intensified and more efficient use of these limited resources, particularly water.

But there are serious constraints to making agricultural intensification and growth a vehicle for sustainable hunger and poverty reduction, including the following:

- *Natural resource constraint.* Arable land per person in developing countries has shrunk from 0.32 hectares in 1961/63 to 0.21 hectares in 1997/99 and is expected to drop to 0.16 hectares by 2030. At the same time, several processes are contributing to declining quality of land resources. Soil erosion is responsible for about 40 per cent of land degradation worldwide, while 20 to 30 per cent of irrigated land in developing countries has been damaged by waterlogging or salinity. Extreme poverty and hunger push people onto marginal lands and more fragile ecosystems characterized by drought stress and low soil fertility. Yield growth, which contributed more than 70 per cent to crop production increases in the last four decades, slowed during the 1990s, and environmental stress increased.

- *Poor rural infrastructure.* Rural areas in most developing countries face a deteriorating stock of rural infrastructure and inadequate levels of services, reducing the competitiveness of rural producers outside local markets and restricting their access to current market information. Rural areas lack roads and bridges, small-scale irrigation systems, post-harvest storage facilities, processing and market facilities, health clinics, electricity and telecommunication facilities.

- *Poorly functioning rural financial markets.* Rural households in developing countries need an integrated rural financial system that allows small savers to save conveniently and cheaply and that provides insurance and credit. Unfortunately, this need is rarely met. As a result, the poor find it difficult to cope with risks of various sorts and cannot afford to purchase important inputs such as fertilizers, chemicals and farm machinery or to hire additional labour even when it would be profitable to do so.

- *Poor systems for knowledge generation and dissemination.* Research on technologies and production methods of interest to the poor are seriously underfunded. This includes most forms of pro-poor technology development and most approaches to farm development that do not depend on the increased use of purchased inputs — such as integrated pest management and measures to raise the organic matter content of soils to improve fertilizer use efficiency (through biological nitrogen fixation, for instance) — or that rely on the sustainable use of genetic resources.

- *Market and globalization.* Markets are important drivers for agricultural growth, making cash crops attractive and allowing specialization and diversification into new products. In many developing countries, however, market access faces both domestic as well as international constraints such as inadequate physical infrastructure, sanitary and phytosanitary barriers, unstable market opportunities related to production variability, relatively small markets, lack of current market information and trading skills, uncertain policy environments, rapidly changing trade regulations and often, lack of total market access.

- *Unfinished policy and institutional reforms.* Appropriate institutions and policies are necessary conditions for agricultural productivity growth. They create the enabling environment in which markets guide the combination of land, water and plant and animal genetic resources — with appropriate technologies, financial capital, labour and infrastructure to produce growth.

In line with the challenges above, the WEHAB Working Group recommends four areas for action in agriculture:

- Increase agricultural productivity and sustain or enhance the natural resource base, particularly in sub-Saharan Africa, contributing to efforts to eradicate poverty and ensure environmental sustainability
- Encourage knowledge generation and transfer research, extension, education and communication
- Establish innovative public-private partnerships to stimulate joint implementation of sustainable agriculture and natural resources conservation
- Develop enabling policies and associated institutional reforms and regulatory frameworks, including infrastructure and access to markets, capital and financial services

Support for the agricultural sector suffered in recent years from a combination of waning public interest, declining investments, pervasive urban bias, poor performance, inappropriate and weak institutions. The 1980s and 1990s saw a precipitous decline in funding for this area as donors transferred resources to other sectors and as developing country Governments turned their interest elsewhere. Fortunately, there is a renewed focus on the imperatives of broad-based rural development. It is to be hoped that this is a signal of a trend towards placing agriculture once again in a prominent place on the development agenda of developing countries.

Biodiversity

The variety of life forms on earth, including genes, species, and ecosystems, is known as biological diversity or biodiversity. The immense value of this vast resource remains largely unrecognized. For instance, genetic diversity underpins the development of cultivated food crop varieties and animal breeds. It also helps wild populations adapt to changing environmental conditions. Loss of biodiversity results in serious reductions in the goods (such as food, medicines and building material) and the services (such as clean water and nutrient cycling) that the earth's ecosystems can provide and that make economic prosperity and human survival possible. In short, biodiversity is the very basis for sustainable development. An estimated 40 per cent of the global economy is based on biological products and processes. And of the 1.2 billion people living in extreme poverty, approximately 900 million live in rural areas; they are therefore highly dependent on biodiversity for their livelihoods and are most severely affected by biodiversity loss, water pollution and land degradation.

Humankind has very little knowledge about the world's biodiversity, since fewer than 2 million species have been significantly described from an estimated 10 to 15 million (or perhaps far more) species. And the role of these described species in the ecosystem functioning and services upon which society depends is almost completely unknown. Although action to stop the loss must not wait for the gathering of complete knowledge on biodiversity, the current extreme lack of knowledge severely hampers the efforts to achieve sustainable development.

The total loss of species through global extinction is a real concern. It has been estimated that current extinction rates among mammals and birds may be more than

100 times the rate expected in the absence of human activities. It is not coincidental that these rates are often matched by the extinction of languages and other forms of cultural diversity.

However, the gradual erosion of genetic diversity, the loss of local populations and the fragmentation of existing species are often of far greater significance. Loss of these elements of biodiversity is liable to have a direct impact on the livelihoods of people, particularly the world's rural poor and disadvantaged. And it is the local loss of species populations, along with direct physical modification of the landscape, that contributes most to ecosystem degradation.

The main underlying causes of the losses originate in some of the most basic social, economic, political, cultural and historical features of society. The driving forces are numerous and interdependent, and although many of them depend strongly on international decisions and activities, the approaches to dealing with them are specific to countries and local settings and will therefore vary. The causes can be local, national, regional or global, transmitting their effects through economic or political actions. They include:

- Broad social, economic and political processes
- Institutional and social weaknesses
- Market and economic policy measures
- Lack of knowledge

Although the world community has achieved significant results in identifying general objectives, principles and priorities for sustaining biodiversity, the results in the field are not yet very encouraging. Numerous international treaties and national legal instruments have been established but a range of barriers impede the effective implementation of these treaties, laws and regulations. Blame can seldom be assigned to one single factor, but rather a complex set of interacting causes in most cases will require a multifaceted and site-specific response. And dependable, replicable solutions appear to be rare.

Perhaps the most basic driving force is an unsustainable pattern of production and overconsumption of goods and services by a relatively small proportion of the human family. In addition, the increasing human population is straining the capacity of the earth to meet human needs. The land, water and other resources required to increase food production often conflict with traditional conservation interests. Those who are most affected by the erosion of their environment usually do not derive benefits from either large development projects or from the establishment of classical protected areas.

This illustrates the need for integrating biodiversity concerns and values into overall sustainable development strategies and plans, and the need to approach the management of biodiversity in a socio-economic context. People must be included. Some 900 million of 1.2 billion people living in extreme poverty are in rural areas and are highly dependent on biodiversity and functioning ecosystems to survive. Fighting poverty in these areas often implies finding new job opportunities based on biodiversity.

The WEHAB Working Group highlights two areas of action and, on the basis of the millennium development goals and in each of these, suggests a number of

actions with proposed time frames with indicative targets related to the overall target of putting in place measures to halt the loss of biodiversity by 2010, as laid out in The Hague Ministerial Declaration adopted at the sixth meeting of the Conference of the Parties to the Convention on Biological Diversity.

- Integrate the principles of sustainable development into country policies and programmes, as called for in millennium development goal 7. For biodiversity, this means being integrated, as the living basis for sustainable development, into development programmes and economic sectors' plans, strategies and responsibilities.

- Reverse the loss of environmental resources, as called for in millennium development goal 7. For biodiversity, this means halting the loss of biodiversity and restoring, if at all possible, biodiversity in degraded areas, as endorsed by the Conference of the Parties at its sixth meeting.

The entities of the United Nations system, including the specialized agencies and the World Bank group, address the challenges of each of the WEHAB areas from different perspectives but with a common aim of improving the quality of life of billions around the world while preserving the environment. Given the multidimensional character of the WEHAB areas, through its multi-agency work the United Nations system offers the potential for a holistic, multidisciplinary approach — with each agency bringing to the common effort its particular sectoral entry point and specialized set of knowledge, expertise and skills.

Under the integrating vision of the Millennium Declaration and through a series of coordination instruments — the United Nations Common Country Assessment and Development Assistance Frameworks, and the Poverty Reduction Strategy Papers among others — the United Nations system ensures that the whole of its work is greater than the sum of its parts.

The World Summit on Sustainable Development is a unique opportunity for the international community to provide inputs and approaches that would allow the recommendations of international treaties, conventions, conferences and meetings to be translated into practice.